

REMARKS/ARGUMENTS

Status of the Claims

Claims 1-2 & 4-20 are pending in this application.

Claims 1-2, 4-13 & 15-20 are rejected.

Claim 14 is objected to.

Claim 8 has been amended. Support for these amendments can be found throughout the specification, claims and drawings as originally filed.

The examiner has rejected claims 1, 4, 5, 10 and 11 under 35 U.S.C. 103(a) as being unpatentable over Rayment '298 in view of Eagen '185.

United States Patent No. 5,551,298 to Rayment discloses an apparatus for identifying vibration induced noise in a vehicle. Specifically, an operator uses an input/display module 24 to record when the vibration induced noise begins and ends. The operator moves an indicator line across the screen of the input/display module 24, when the vibration induced noise is heard, the operator presses a button to fix the position of the indicator line. (Col. 3, ll. 33-37.) Once the first line is fixed, the operator continues to listen to the vibration induced noise, i.e., rattle or squeak being monitored. Once the vibration induced noise ceases, the operator pushes the button again to fix the position of a second line in a similar manner. (Col. 3, ll. 47-51.) The apparatus does not measure the sound level emitted from the product. Instead, the operator simply determines when the noise starts and when it stops. (Col. 2, ll. 17-21.)

United States Patent No. 5,435,185 to Eagan discloses a vibration and acoustic sound diagnostic instrument used to detect the existence of vibration abnormalities. The apparatus includes an instrument 10 coupled to one or more acoustic vibratory pickup devices 14, 16. (Col. 4, ll.38-46.) The apparatus 10 further includes a sound level

range selector control 18 and a sound level decibel meter 20. (Col. 4, ll. 50-56.) The decibel meter is a visual means for indicating changes and peaks in vibration sound levels. (Col. 3, ll. 19-20.) The apparatus further includes an ear phone headset E-H that plugs into the apparatus 10. (Col. 4, ll. 56-61.) The sound level transmitted by the instrument 10 to the ear phone headset E-H worn by the operator is adjustable by a volume controller 26. (Col. 5, ll. 32-37.) The instrument 10 is a listening device that allows audible sound discrimination through the ear phone headset worn by the operator coupled with a visible decibel meter indication of the sound level.

Claim 1 includes as an element thereof the step of computing an objective metric based on an N10 loudness scale from acquired sound data. Contrary to the position advanced by the examiner, Eagan '185 does not disclose generating an objective metric based on measured sound by acquiring sound data and computing an objective metric based on an N10 loudness scale from the acquired sound data. As set forth above, Eagan '185 discloses use of a decibel meter as a means to indicate changes and peaks in vibration sound levels. No reference is made to an N10 loudness scale. Further, no objective metric is computed from the acquired sound data. Instead, Eagan '185 relies on a professional maintenance operator to listen to the sound through the ear phone headset and view the visual decibel meter. As the elements of amended claim 1 are not taught or suggested by the combination of Rayment '298 and Eagan '185, Applicants submit that claim 1 and the claims dependent therefrom are allowable as written.

Claim 10 includes as an element the step of measuring the level of the vibration induced sound and computing an objective metric. Nothing in Rayment '298, nor the combination of Rayment '298 and Eagan '185, teaches the measuring the vibration induced sound and computing an objective metric. To the contrary, as set forth above,

Rayment '298 teaches the use of an apparatus wherein an operator indicates when a vibration induced noise first occurs and when it ceases. Nothing in Rayment '298 discusses measuring the level of the vibration induced sound and computing an objective metric therefrom. Eagan '185, as set forth above discloses a visible decibel meter indicating changes and peaks in vibratory sound levels. It does not disclose computing an objective metric from these sound levels.

Further, there is no teaching or suggestion to combine Rayment '298 and Eagan '185. The examiner argues that it would have been obvious to incorporate Eagan's teaching into Rayment's invention, "because it would provide sound data measurements in decibel units." The examiner offers no support for this position and does not indicate how this teaches applicants' invention. Rayment '298 is concerned with when the sound starts and when it ends, not the level thereof. Further, while Eagan '185 displays the sound level in decibels, it has no teaching or suggestion regarding any use of the decibel level. Thus, even if Rayment '298 and Eagan '185 were combined as proposed by the Examiner they would not teach or suggest applicants' invention. Accordingly, applicants submit that claim 10 and the claims dependent therefrom are allowable as written.

The examiner has rejected claims 2, 6-8, 12, 13, and 15-20 under 35 U.S.C. 103(a) as being unpatentable over Rayment '298 in view of Eagan '185 and Hamada et al., U.S. Publication No. 2004/0015251. Claim 18 includes as an element the step of measuring and recording the sound level emitted from the vehicle during operation and computing an objective metric based on the recorded sound level. As set forth above, nothing in Rayment '298, nor the combination of Rayment '298 with Eagan '185 teaches the use of recording the sound level emitted during vehicle operation to compute an

objective metric. Adding Hamada et al as a reference does not change this.

Accordingly, applicants submit that claim 18 and the claims dependent therefrom are allowable as written.


It is respectfully submitted that in view of the above amendments and remarks the claims are patentably distinguishable because the cited patents, whether taken alone or in combination, do not teach, suggest or render obvious, the present invention. Therefore, applicant submits that the pending claims are properly allowable, which allowance is respectfully requested.

The Examiner is invited to telephone the applicant's undersigned attorney at (313) 337-1069 if any unresolved matters remain.

Please charge any cost incurred in the filing of this amendment, along with any other costs, to Deposit Account No. 06-1510. If there are insufficient funds in this account, please charge the fees to Deposit Account No. 06-1505.

Respectfully submitted,

Attorney for Applicant(s)

By: 

Dated: November 17, 2004